Show Me

Falls Free Missouri

Show Me Falls Free Missouri:

An Action Plan for Preventing Falls Among Older Adults in the Community

Falls Among Older Adults: A National Public Health Crisis

Falls and fall-related injuries among older adults are common and present a serious public health crisis in the United States. Falls among older adults result in longstanding pain, functional impairment, disability, hospital morbidity, death and premature nursing home admissions. [1-3] Further, they represent a significant burden on individuals, families, society and the health care system, as evidenced through associated costs and decreased quality of life for our older adults and their families.

Falls are not an inevitable part of the aging process, and are often highly preventable.

How big is the problem?

More than one third of adults 65 and older living in the community fall each year in the United States,[4] the rate increases to 40% among those over the age of 80 years.[2] Among older adults, in Missouri, as in the nation, falls are the leading cause of injury deaths.[5] In 2005, 15,800 people 65 and older died from injuries related to unintentional falls.[6] In 2006, 575 older Missourians died due to falls, and falls may have contributed to other deaths as well. The falls death rate for older Missourians in recent years has been more than three times the rate for the next-highest injury cause, which is motor vehicle accidents. And the rate is increasing. The death rate due to falls among Missourians aged 65 and older rose more than 60 percent between 1999 and 2006, from 45.8 per 100,000 to 73.8 per 100,000.[7]

Further, according to CDC, falls are the most common cause of nonfatal injuries and hospital admissions for trauma. In 2005, 1.8 million people 65 and older were treated in emergency departments for nonfatal injuries from falls, and more than 433,000 of these patients were hospitalized.[6]

What outcomes are linked to falls?

Twenty percent to 30% of people who fall suffer moderate to severe injuries such as bruises, hip fractures, or head traumas. [9-10]Most fractures among older adults are caused by falls. [10] Falls are the most common cause of traumatic brain injuries among older adults.[12] In 2000, traumatic brain injury accounted for 46% of fatal falls among older adults.[8]

Many older adults never fully recover from falls, living with chronic pain, reduced functional abilities, often leading to reduced independence for seniors and even nursing home admissions.[13] One study found that falls were the major reason for 40% of nursing home admissions.[14]

Many people who fall also have a chronic or acute disease and the functional impairment as a result of that disease either precipitates the fall or is further complicated by the fall.[15] For example, individuals with arthritis may experience decreased mobility or decreased grip which may exacerbate a fall. Or individuals with osteoporosis may have bone deterioration thus do not

routinely engage in exercises that might result in better balance and gait. Or individuals prone to depression may engage in physical activity less and may experience an exacerbation of their depressive illness due to pain or limited mobility following a fall injury.

Many people who fall, even those who are not injured, develop a fear of falling. This fear may cause them to limit their activities, leading to reduced mobility and physical fitness, and increasing their actual risk of falling.[16]

The impact of the older adult's fall-related injury upon the caregiver(s) in terms of decreased productivity, increased time away from work and family and stress-related issues are widely acknowledged, but not commonly discussed or quantified in the literature.

How costly are fall-related injuries among older adults?

The total direct cost of all fall injuries for people 65 and older in 2000 was slightly more than $19 billion.[16] By 2020, the annual direct and indirect cost of fall injuries is expected to reach $43.8 billion (in current dollars).[18] One study of older adults aged 72+ found that the average health care cost of a fall injury was $19,440 (including hospital, nursing home, emergency room, and home health care, but not doctors' services).[19]

The costs of fall injuries tend to increase with age and tend to be higher for women.[17]

Fractures were both the most common and most costly type of nonfatal injury. Just over one third of nonfatal injuries were fractures, but they made up 61% of costs or $12 billion. In 2000, nearly two thirds of the costs of nonfatal fall injuries were for those needing hospitalization. One fifth of costs were for injuries treated in emergency rooms.[17]

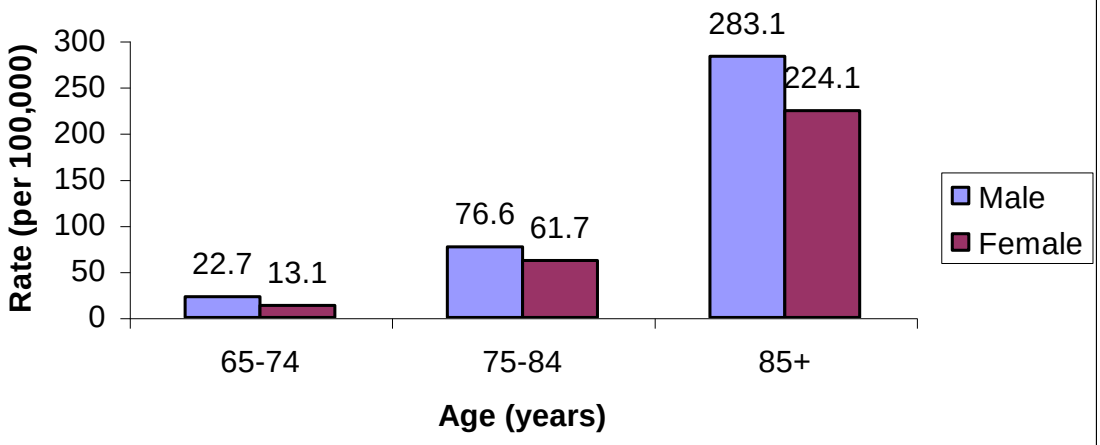
The Scope of Falls Among Missouri's Older Adults

How big is the problem in Missouri?

In Missouri, the fall death rate for older adults was more than thirty percent higher than the national death rate in 2005.[5] Indeed, falls are the leading cause of unintentional injury deaths among Missouri's older adults, accounting for over 60% of all such deaths among Missouri's older adults in 2006.[7]

The death rate of falls increases with age, and jumps sharply for older adults. For Missouri in 2006, the rate of death due to falls in older adults was more than 16 times higher than for those 45-64 years of age (73.8 vs. 4.6 per 100,000). The rate of death due to falls increases steeply through the senior years. In 2006, it was 20.7/100,000 for Missourians ages 65-74, 81.9/100,000 for those 75-84 years old, and 239.0/100,000 for those aged 85 and older. Fall death rates among Missouri older adults are generally slightly higher in males than in females (Figure 1). However, females account for a larger <u>number</u> of falls deaths, because they are more likely to survive into the older age groups.[7]

Figure 1. Fall death rate by age and sex, among seniors 65+ years of age, Missouri, 2003-2005



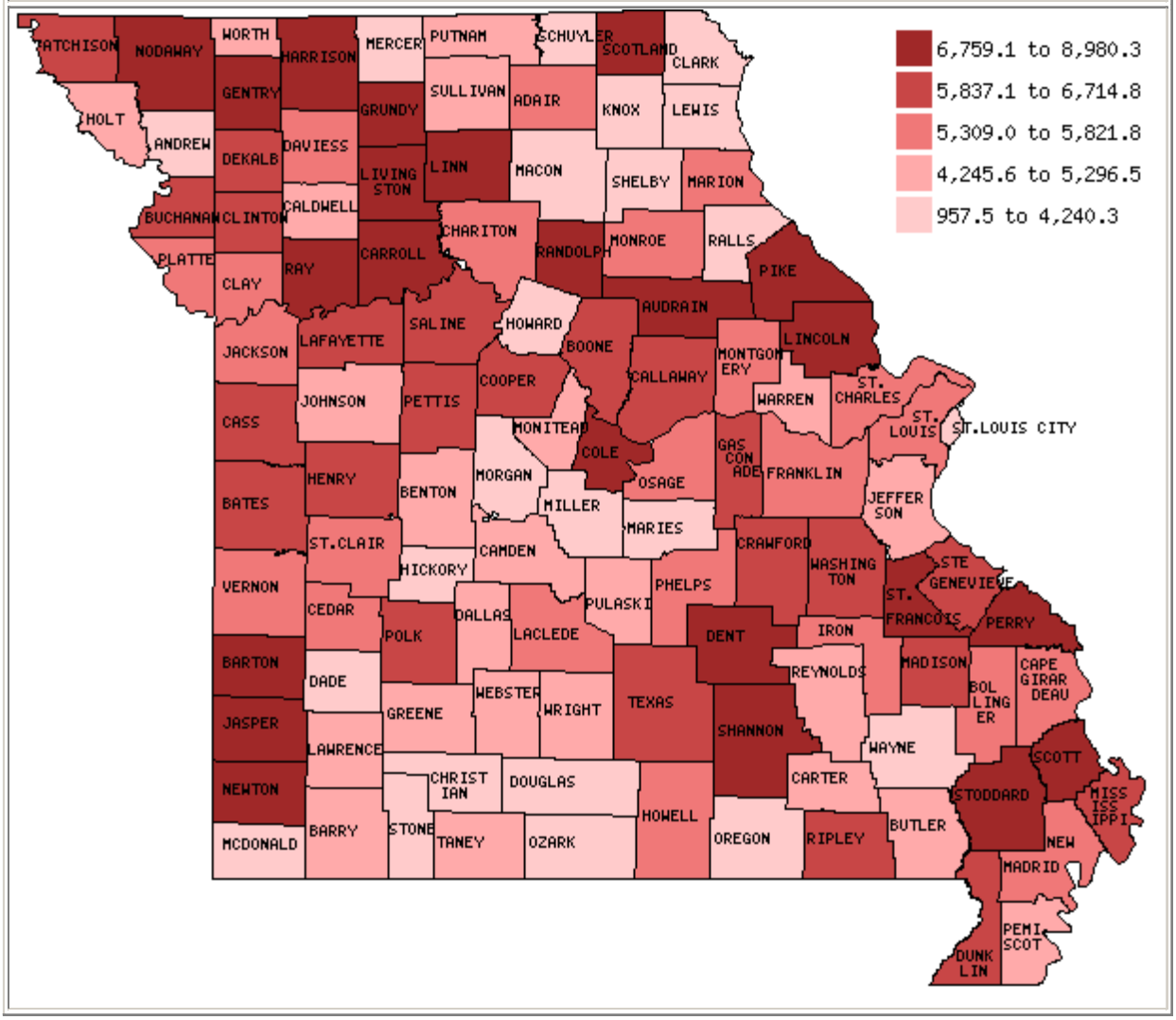
Source: DHSS, Death MICA (http://www.dhss.mo.gov/DeathMICA/index.html)

The fall death rate in Missouri older adults has been rising over recent years. Indeed, the death rate due to falls among Missourians aged 65 and older rose more than 60% between 1999 and 2006, from 45.8 per 100,000 to 73.8 per 100,000. The fall death rate among white older adults is consistently higher than the rate among African-American older adults. In 2006, the rate for white older adults was 2.8 times the rate for African-American older adults (77.9 vs. 28.1/100,000).[7]

Falls are also the leading mechanism of unintentional injury-related hospitalizations and emergency room (ER) visits among older adults. In 2006, there were 43,150 (or 5,540 per 100,000 senior population) ER visits and hospitalizations due to unintentional falls among Missouri older adults, representing almost two thirds (64%) of all unintentional injury related ER visits and hospitalizations among Missouri older adults.[20]

The rate of ER visits and hospitalizations due to unintentional fall injuries increases considerably with age in older adults. In 2006, the rate in Missouri seniors 85 years and over was more than four times higher than those at 65-74 years (13,934 vs. 3,047 per 100,000). Older adult women are almost twice as likely to be hospitalized or admitted to ER due to unintentional fall injuries than older adult males (6,837 vs. 3,720 per 100,000 in Missouri in 2006). Further, the rate of ER visits and hospitalizations due to unintentional fall injuries among Missouri older adults varies by county, from 958 in Clark County to 8,980 in Livingston County in 2005-2006.[20] (Rates in Clark County may be affected by its location on the border of Missouri, with some residents seeking care in another state that is not reported into our data.)

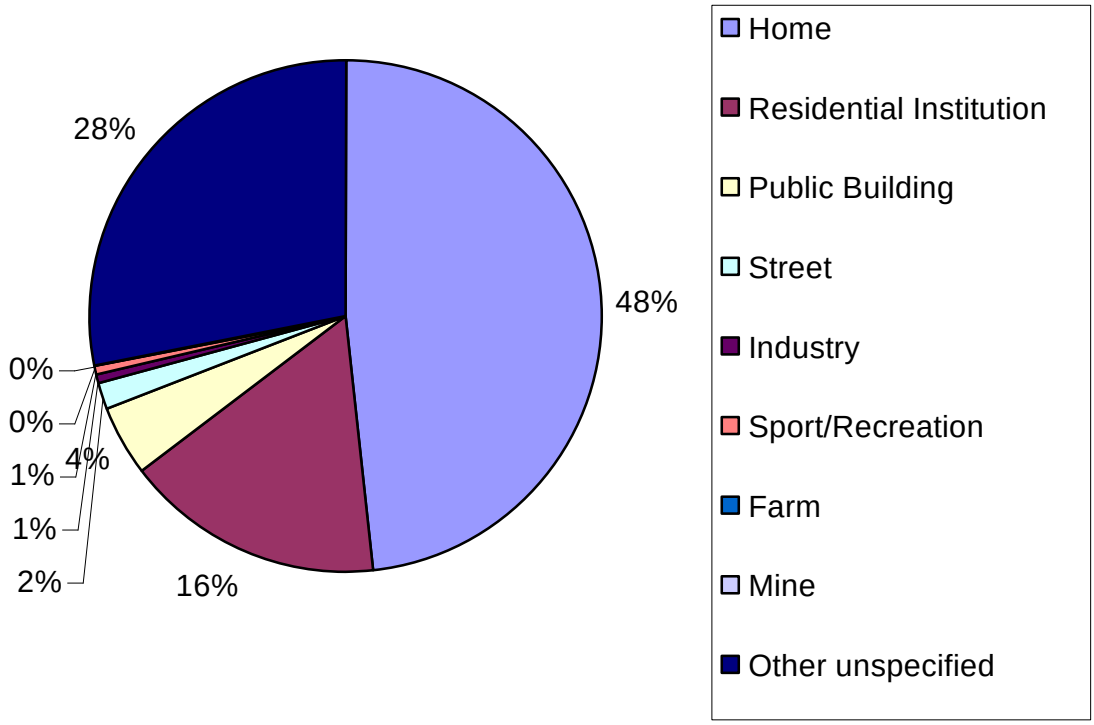
Figure 2. Rate (per 100,000) of E/R visits and hospitalizations due to unintentional fall injuries* among Missouri seniors 65+ years, by county, 2005-2006



Source: DHSS, Injury MICA (http://www.dhss.mo.gov/InjuryMICA/)
* Principal diagnosis

Where do fall-related injuries among older adults in Missouri typically occur?
Information about the place of occurrence is important in developing fall prevention strategies. Nearly half of fall injury cases among Missouri older adults occur at home (48% in 2004) (Figure 3). It should be noted that older adults generally spend more time inside than outside their homes. Fall injuries in residential institutions accounted for 16% of fall hospitalizations and ER visits among Missouri older adults in 2004 (Figure 3).[20] Residential institutional older adults are generally more frail and older than those living in the community, and thus may be much more likely to have fall injuries.[21]

Figure 3. ER visits and hospitalizations due to unintentional fall injuries among Missouri seniors 65 years and older, by place of occurence, 2004

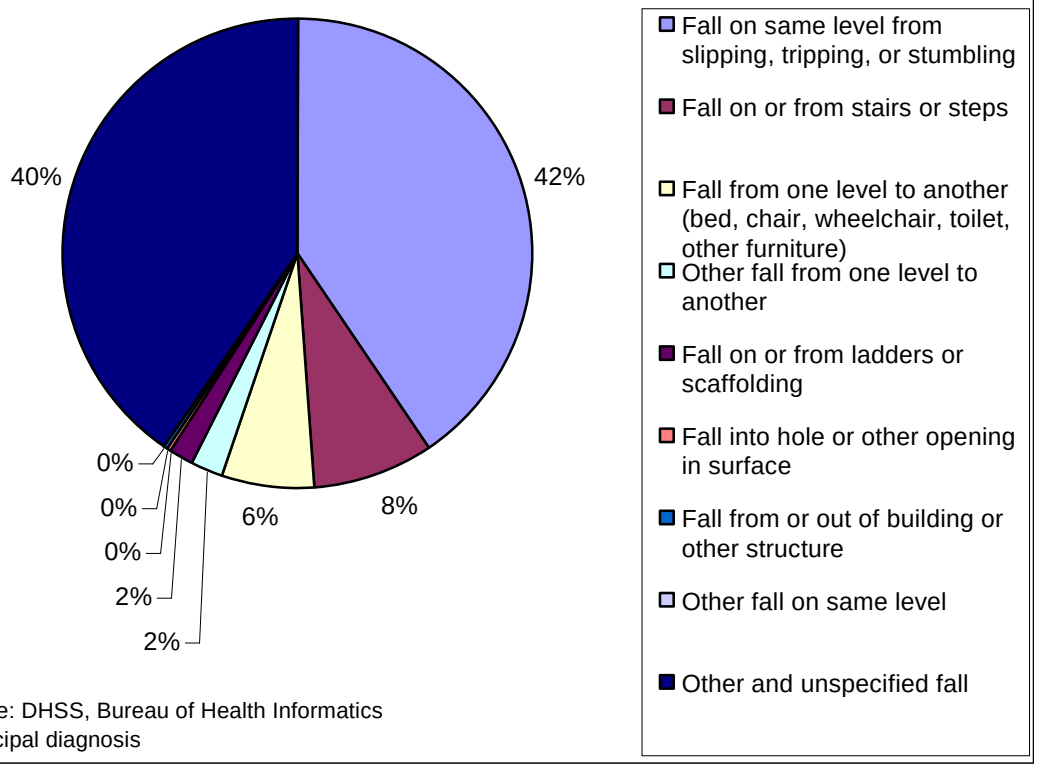


Source: DHSS, Bureau of Health Informatics
* Principal diagnosis

Approximately 90% of older adults live in the community.[22] Due to the target population of the "Show Me Falls Free Missouri" plan, additional analyses were specifically focused on the type of fall and location of injury sustained by Missouri older adults for falls occurring in the community.

Figure 4 shows that falls on the same level from slipping, tripping, and stumbling (42%) is the most common cause of fall-related hospitalizations and ER visits among Missouri older adults in the community, though there is a large percentage with unspecified falls. Falls from stair or steps (8%) and falls involving bed, chair, wheelchair, toilet, or other furniture (6%) are also noticeable situational factors for falls in older adults in the community (Figure 4). One study evaluating risk factors of falls in older adults living in the community found that a possible environmental factor was reported by 44% of the falls. Objects tripped over, and stairs were the most frequently mentioned environmental factors attributable to falls in seniors.[23]

Figure 4. ER visits and hospitalizations for unintentional fall injuries, by type of fall, among Missouri seniors (excluding those in residential institutions), 2004



Source: DHSS, Bureau of Health Informatics
* Principal diagnosis

How costly are fall-related injuries among older adults in Missouri?

Hospital charges including inpatient and ER patient charges give us a measure of one important economic dimension of fall injuries for seniors. Estimated hospital charges for unintentional fall injuries among Missouri seniors were $208 million in 2000, and reached $308 million in 2004 (before adjusting for inflation), which accounted for 77% of hospital charges for all unintentional injuries among Missouri seniors in 2004. 86% of fall-related ERs and hospitalizations for Missouri older adults occurred for those in the community, costing $248 million (81%) of hospital charges of fall injuries among Missouri older adults in 2004.[24]

Hip fracture is a serious fall injury.[22] Indeed, according to literature, approximately 95% of hip fractures are caused by falls.[23] In Missouri, hip fractures represented a substantial cost, accounting for nearly half (49%) of hospital charges for unintentional fall injuries among Missouri older adults in 2004. The median hospital charges were about $1,500 for an unintentional fall injury, while extremely higher for a fall induced hip fracture ($22,000) among Missouri older adults in 2004.[24] A recent study documented the cost of a hip fracture during the first year following the injury was $16,300-$18,700 (including direct medical care, formal

nonmedical care, and informal care provided by family and friends).[22] Only a half of seniors hospitalized for hip fracture are able to return home or live independently after the injury.[23]

It is important to note that hospital charges do not show the whole picture of economic costs of falls and fall-related injuries for Missouri's older adults. Other fall-induced costs also pose considerable financial burden to both the families and to society. These costs and fees may include nursing home care, physician and other professional services, rehabilitation, community-based services, the use of medical equipment, prescription drugs, rehabilitation, home modifications, insurance administration, and costs related to the long-term consequences of fall injuries, such as disability, decreased productivity, or reduced quality of life.[17]

What Risk Factors Contribute to Falls and Fall-Related Injuries Among Older Adults?

A number of research studies have identified multiple risk factors for falling among the community-dwelling elderly population. While a few falls appear to have a single cause, the majority result from interactions among multiple factors.[2,26] Furthermore, the risk of falling increases dramatically as the number of risk factors increases.[3,23] Indeed, one cohort study showed the percentage of falling among community-dwelling older adults was only 8% for those with no risk factor, and increased to 78% for those with four or more risk factors.[23]

Risk factors can be either intrinsic factors including both demographic and health factors (e.g., advanced age, chronic disease or disability), or extrinsic factors including the physical and socio-economic environment (e.g., four or more prescription medications, poor lighting, lack of bathroom safety equipment). There has been no consistent classification of fall risk factors. Frequently reported risk factors for falls in older adults include:

- Advanced age[27]
- Female gender[28]
- White[29]
- History of previous fall[23]
- Muscle weakness[30]
- Gait or balance deficit[2,31]
- Chronic illness/disability (e.g., Parkinson's disease, stroke, heart disease, depression, urinary incontinence, dementia, postural hypotension, eye diseases, osteoarthrosis)[21,12,23,32]
- Acute disease[12,23]
- Poor vision[33]
- Cognitive impairment[2]
- Taking more than four medications or using psychotropic medications (e.g., sedatives, hypnotics, antidepressants)[21,30]
- Environmental hazards (e.g., poor lighting, loose carpets, lack of bathroom safety equipment, poor stair design, obstacles and tripping hazards, slippery or uneven surfaces)
- Use of assistive devices[23,30]
- Routine activities such as walking on stairs[27]

Several research studies have attempted to evaluate the importance of risk factors based on predefined criteria.[34,35] One study found muscle weakness increased the risk of a fall by four to five times. History of falls, gait deficit, or balance deficit result in three times an increased risk of falling.[30,35]

Another review specifically focused on prospective studies of potentially modifiable risk factors of falls in older adults and determined the level of evidence of each risk factor from level 1 (best evidence) to level 6 (no evidence). For community-dwelling older adults, mental status and psychotropic drugs shows best evidence of level 1, and risk factors with level 2 of evidence include multiple drugs, environmental hazards, vision, lower extremity impairments, balance, gait and activities of daily living.[34]

What are effective strategies to reduce fall-related injuries among older adults? What is occurring nationally and within other states to support falls prevention?

In general, fall prevention interventions can be categorized into three broad categories: 1) single intervention (e.g., exercise program or withdrawal of psychotropic drugs); 2) a multifactorial prevention strategy including application of several intervention practices simultaneously; and 3) individualized multifactorial risk assessment combined with targeted interventions to reduce these risks.

The National Council on the Aging (NCOA) recognizes five primary intervention strategies that are effective according to the research:

- Comprehensive clinical assessment[30]
- Exercise for balance and strength[36]
- Medication management[37,38]
- Vision correction[22]
- Reducing home hazards[39,40]

Most information related to what is considered effective practice recognizes these same five interventions according to the research. One author describes these interventions slightly differently and makes some notable additions:

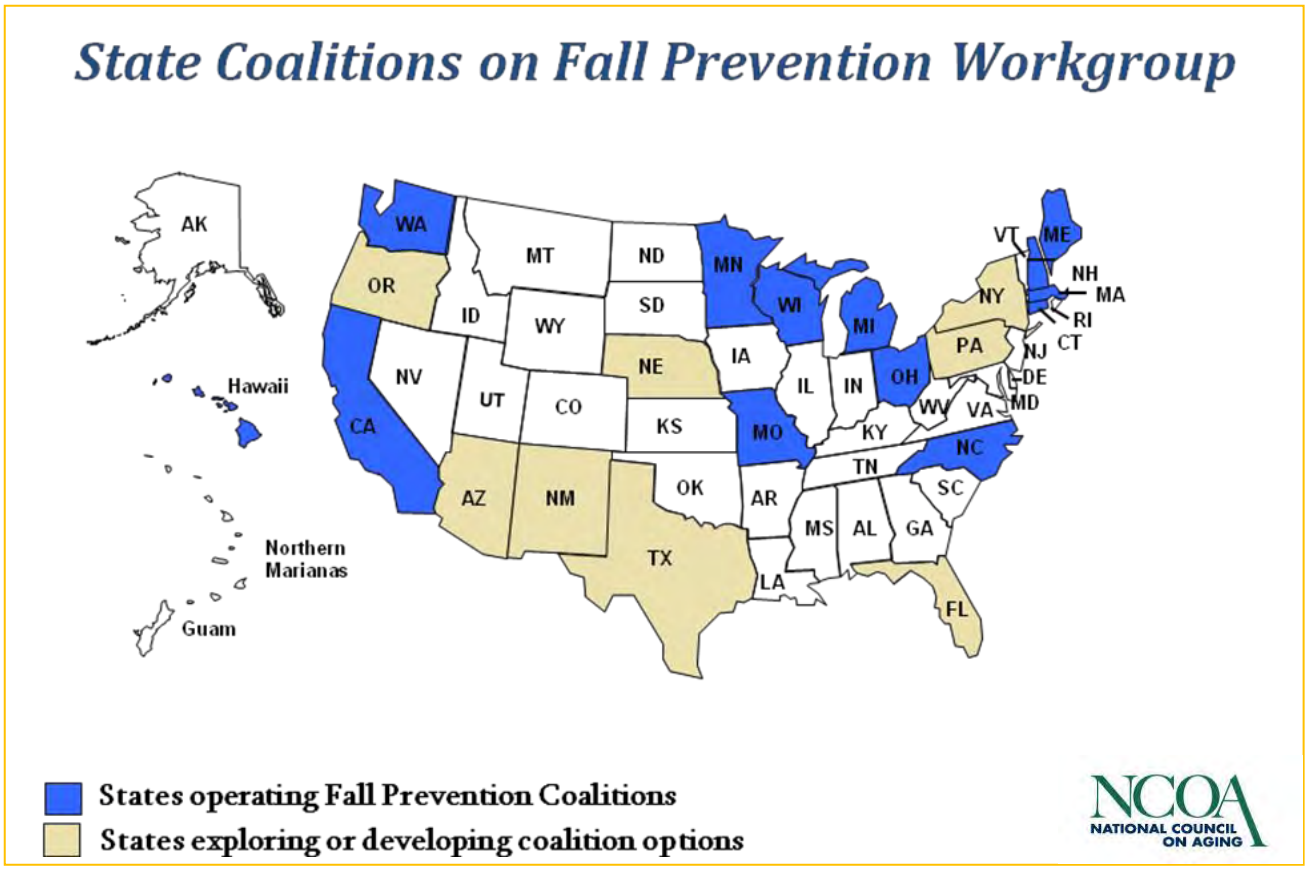
- Regular strength and balance exercises
- Clinical management of chronic and acute illness
- Medication review and possible elimination or dose reduction
- Home hazard assessment and modification
- Educational programs about fall risks and prevention
- Use of assistive devices based on individual assessment[14]

The NCOA has partnered with the Home Safety Council, the Archstone Foundation, and the Center for Healthy Aging to establish and promote a national action plan entitled “Falls Free: Promoting a National Falls Prevention Action Plan”. Many national partners have joined in this work, including several entities present in Missouri at the state level.

The Centers for Disease Control and Prevention (CDC) has published numerous resources including fact sheets and manuals summarizing best practices and developing community-based programs to prevent falls among older adults. These are only two examples at the national level of organizations which support falls prevention for older adults. Links to these resources, and others, are available in the Resources section of this document beginning on page 17.

Likewise, many states have formed falls prevention coalitions (Figure 5) and/or published state and regional action plans designed to lead their work in falls prevention. Links to several of these state resources are also available in the Resources section of this document.

Figure 5



How did this Missouri action plan come about?

The AARP Missouri, supported by the Missouri Department of Health and Senior Services (DHSS), invited key state-level stakeholders and organizations to a multi-month strategic planning and visioning process that occurred in the early months of 2008. Key stakeholder participants included representatives from health care providers and associations, area agencies on aging and other senior-serving organizations, academic institutions, local public

health agencies and associations, disease-specific associations and state agencies. A full list of participants in this initial strategic planning process is attached.

The strategic planning and visioning process was prefaced by two earlier informational meetings in 2006 hosted by DHSS to determine the level of interest within the state in addressing the impact of senior falls in the community. There was clear interest in planning, as a state, to address falls prevention in seniors while recognizing no designated funding for this work existed at the time of these initial meetings.

The Show Me Falls Free Missouri plan is intentionally aligned with the National Falls Free Action Plan, as well as with the work of multiple other states in addressing falls amongst seniors.

The Show Me Falls Free Missouri State Coalition is a voluntary coalition of diverse entities interested in decreasing falls and fall-related injuries amongst Missouri's older adults while maximizing their independence and quality of life and decreasing healthcare costs and deaths.

Community leaders, as well as senior-serving organizations and associations, may wish to join the Show Me Falls Free Missouri State Coalition. The State Coalition is led by a multi-agency leadership team including: AARP Missouri; Missouri Association of Area Agencies on Aging; Missouri Pharmacy Association; Missouri Physical Therapy Association; Missouri Department of Health and Senior Services; and OASIS.

To learn more about the state coalition or to join this work, please visit us on the web at: www.dhss.mo.gov/showmefallsfreemissouri.

Show Me Falls Free Missouri

Action Plan

Vision: Missouri older adults will have fewer falls and fall-related injuries, maximizing their independence and quality of life, while decreasing healthcare costs and deaths.

Goal 1: Missouri older adults will have knowledge of the benefit, and access to fall risk assessment as appropriate to their individual needs.

Strategy 1.1: Develop/adopt public educational materials for older adults, their caregiver(s) and healthcare provider(s) on the benefit of periodic fall risk assessment.

Strategy 1.2: Develop/adopt standardized fall risk assessment tools for various settings and providers, distributing and providing information relative to the tools as appropriate.

Strategy 1.3: Distribute information to healthcare providers related to the recently updated joint guidelines proposed by the American and British Geriatrics Societies (AGS, BGS) for fall risk assessment.

Strategy 1.4: Improve collection, analysis, and dissemination of data on the percent of older adults who receive fall risk assessments.

Goal 2: Missouri older adults living in the community will have knowledge of, and access to, effective programs and services that preserve or improve their physical mobility and lower the risk of falls.

Strategy 2.1: Develop/adopt public educational materials for older adults and their caregiver(s) to raise awareness of fall risk and protective factors related to physical conditioning, strength, gait and balance.

Strategy 2.2: Design and implement a public awareness campaign using dissemination strategies customized to community-dwelling older adults to distribute identified public educational materials.

Strategy 2.3: Partner with key aligned programs and associations, at the state and community levels, to promote regular physical activity.

Strategy 2.4: Promote the use of targeted home exercise programs by older adults to address identified risk factors.

Strategy 2.5: Promote state and community recreational, faith-based and senior-serving organizations to provide evidence-based physical activity programs customized to the older adult population, recognizing fall risk factors.

Strategy 2.6: Improve collection, analysis, and dissemination of data on the percent of older adults who have regular physical activity.

Goal 3: Missouri older adults, their caregiver(s) and healthcare provider(s) will be aware that falling is a common adverse effect of some prescription and nonprescription medications and have the tools/information to ameliorate the risk.

Strategy 3.1: Develop/adopt public educational materials for older adults, their caregiver(s) and healthcare provider(s) to raise awareness of fall risk factors related to prescription and nonprescription medication and the need for annual or periodic medication reviews, focusing on medication reduction or elimination when appropriate.

Strategy 3.2: Support healthcare provider (e.g., primary care physician and pharmacist) efforts in the implementation of periodic medication reviews and modifications prior to each new prescription that is written or filled for an older adult.

Strategy 3.3: Develop/adopt a systematic method for predicting how various combinations of medications interact with patient characteristics to increase risk of falls, and then add to MoHealthNet protocol for healthcare provider notification.

Strategy 3.4: Advocate with private insurance providers and Medicare the adoption or customization of methodology implemented in strategy 2.3, once efficacy of strategy is documented through MoHealthNet.

Strategy 3.5: Assure home health care and DHSS/DSDS home and community-based service provider staff has appropriate information to provide education and assistance to older adults and their caregiver(s) in discussing medication management.

Strategy 3.6: Improve collection, analysis, and dissemination of data on the percent of older adults who have periodic medication reviews.

Goal 4: Missouri older adults have access to home and community environments that lower the risk of falls, and facilitate full participation, mobility and independent functioning.

Strategy 4.1: Develop/adopt public educational materials to improve older adults', their caregiver(s)' and healthcare providers knowledge and access to home safety measures including home modifications, that reduce home hazards, improve independent functioning, and lower the risk of falls.

Strategy 4.2: Develop/adopt home safety assessment tool or process and distribute as appropriate.

Strategy 4.3: Partner with community developers, public safety, public transportation providers, etc. to promote better design and maintenance of public places and facilities with sensitivity to the needs of older adults and risk factors for falls.

Strategy 4.4: Provide educational and advocacy tools to older adults, their caregiver(s) and healthcare providers to empower them to make changes within their communities.

Strategy 4.5: Identify funding sources and community-based resources to assist older adults in accessing home assessments and making appropriate modifications.

Strategy 4.6: Improve collection, analysis, and dissemination of data on the percent of older adults who have home safety assessments.

Goal 5: Missouri older adults will have knowledge of the benefit and access to the management of chronic and acute health conditions that place them at increased risk of falls and fall-related injuries.

Strategy 5.1: Develop/adopt public educational materials to increase the older adult and their caregiver(s)' knowledge of the interrelationship of acute and chronic health/mental health conditions, parallel functional limitations and the increased risk of falls, as well as how these resulting risks can be ameliorated.

Strategy 5.2: Partner with state/local public health chronic disease programs, healthcare providers and payors to promote education, screening and management of acute and chronic health/mental health conditions that increase older adults' risk of falls or fall-related injury.

Strategy 5.3: Improve collection, analysis, and dissemination of data on the percent of older adults who receive screenings for acute and chronic health conditions that place them at risk of falls and fall-related injuries.

Goal 6: Missouri older adults will have knowledge of the benefit, and access to visual examination and corrective services to reduce the risk of falls and fall-related injuries.

Strategy 6.1: Develop/adopt public educational materials to increase the older adult and caregiver(s)' understanding of the role of uncorrected or inadequate vision as a risk factor in fall and fall-related injuries, including the need for adequate and uniform lighting in their home.

Strategy 6.2: Promote appropriate primary care screenings for visual problems resulting in referral to optometrist, ophthalmologist or other vision specialist as appropriate.

Strategy 6.3: Promote appropriate vision examination performed by optometrist, ophthalmologist or other vision specialist at recommended intervals.

Strategy 6.4: Identify community sources or other funding mechanisms, as necessary, to assure corrected vision measures occur, as a result of vision examination recommendations.

Strategy 6.5: Improve collection, analysis, and dissemination of data on the percent of older adults who receive vision examinations and recommended corrective measures.

Goal 7: Missouri older adults benefit from intentional state and community infrastructure development to lower risk of falls and fall-related injuries.

Strategy 7.1: Identify key state-level partners to serve as core leadership team.

Strategy 7.2: Define the work of the leadership team and the role of each organization on the leadership team.

Strategy 7.3: Continue to identify and engage state-level partners to serve on Show Me Falls Free Coalition.

Strategy 7.4: Engage with one or more academic research partners to assist with data collection/analysis/redesign, as well as design and execution of outcome measures and studies.

Strategy 7.5: Develop and disseminate a written sustainability plan that identifies funding strategies for all or components of the Show Me Falls Free Missouri Action Plan.

Strategy 7.6: Establish or link to resource repository of evidence-based practices or promising practices as relates to falls and fall-related injury prevention, disseminating information in a manner(s) identified as most effective for community usage.

Strategy 7.7: Engage communities in strategic planning to implement evidence-based, multifactorial interventions within their community to lower the risk of falls and fall-related injuries.

Strategy 7.8: Engage communities and entities responsible for community planning components in actively planning for senior-friendly communities.

Strategy 7.9: Improve collection, analysis, and dissemination of data on the incidence of falls and fall-related injuries.

Key Terms:

Fall – An event which results in the person coming to rest inadvertently on the ground or other lower level, and other than as a consequence of the following: sustaining a violent blow, loss of consciousness, sudden onset of paralysis, or an epileptic seizure. (Kellogg International Workgroup Group. The prevention of falls in later life. Danish Medical Bulletin 1987;34(4):1-24.)

Older adult – Within this plan, older adult typically refers to individual aged 65+. However, this designation is primarily for ease and uniformity of data collection, analysis and dissemination. Certainly, strategies within the plan might be appropriate for individuals and communities considering the fall prevention needs of individuals less than 65 years of age.

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Resources

Fall Free: A National Falls Prevention Action Plan
http://www.healthyagingprograms.org/content.asp?sectionid=98

Center for Healthy Aging
The National Council on the Aging's Center for Healthy Aging has launched a website to provide aging service providers easy access to resources, such as manuals, toolkits, examples of model programs, and links to websites on topics related to healthy aging, including health promotion, disease prevention, and chronic disease management. Provides community based organizations with resources necessary to implement evidence-based health promotion programs for older adults in their local communities. The three Falls Free™ documents are also postedo n this website. www.healthyagingprograms.org

Fall Prevention Center of Excellence
The Fall Prevention Center of Excellence is the home of a California Fall Prevention Initiative. The Center provides information to both consumers and professionals on various topics relating to falls and fall prevention, including planning and implementing public awareness campaigns and engaging coalition partners. There is a periodic e-newsletter available, as well. www.stopfalls.org

National Center for Injury Prevention and Control
Designed for fall prevention programs, "A Tool Kit to Prevent Senior Falls" includes fact sheets, graphs, and brochures about falls and fall prevention for older adults, as well as links to publications including: „Preventing Falls: What Works A CDC Compendium of Effective Community-based Interventions from Around the World' and „Preventing Falls: How to Develop Community-based Falls Prevention Programs for Older Adults'.
www.cdc.gov/ncipc/duip/preventadultfalls.htm

National Center for Safe Aging
Located at San Diego State University, this injury prevention website includes fall prevention materials and programs that are suitable for a variety of stakeholders. It is funded by the National Center for Injury Prevention and Control. Contains physician toolkit entitled Practicing Physician Education Project (PPE).
http://www.safeaging.org/model/default.asp

A Matter of Balance
The Matter of Balance program was developed by the Roybal Center for Research in Applied Gerontology at Boston University and the New England Research Institutes with funding from the National Institute on Aging. In this initiative, the Partnership for Healthy Aging has modified the program delivery to include lay leaders, which is proving to be effective in disseminating this fear of falling program across the state of Maine.
www.aoa.gov/prof/evidence/Smaine.pdf

FallPROOF!
FallPROOF! Is a comprehensive balance and mobility training program designed by researchers at California State University, Fullerton. It offers a practical manual that blends the latest theory into practical applications. It will prove a valuable resource for physical activity instructors and health care professionals working with older adults in physical activity settings, and it will also be helpful for assessing and designing programs to improve mobility and balance. http://www.exrx.net/Store/HK/Fallproof.html

HEROES Program, Temple University
Health, Education, Research and Outreach for Seniors (HEROES) provides educational materials to a variety of stakeholders to affect fall risk assessment and intervention. Materials are available in a variety of languages. www.temple.edu/older_adult/

Local public health department initiatives
An Issue Brief published in May 2004 by the National Association of County and City Health Officials details programmatic initiatives sponsored by or in collaboration with local public health departments including contact information for further details. www.naccho.org/pubs/product1.cfm?Product_ID=21

Connecticut Collaboration for Fall Prevention
Downloadable materials for public use (screening tools) as well as information sheets describing how to handle common fall risk factors such as medications, blood pressure drops on standing, and home fall hazards are available at www.fallprevention.org/index.htm

California State Blueprint: Fall Prevention White Paper
A white paper entitled *Preventing Falls in Older Californians: State of the Art* can be found at www.archstone.org/usr_doc/Copy_of_Fall_Prevention_White_Paper.pdf This work, funded by the Archstone Foundation, (a private grant making organization, whose mission is to contribute towards the preparation of society in meeting the needs of an aging population), served as the framework for the National Falls Free initiative.

Washington State Falls Prevention website
www.fallsfreewashington.org

Stay Active and Independent for Life: An Information Guide for Adults 65+
A publication of the Washington State Department of Health, the purpose of this guide is to provide information for adults age 65 and older that will help them stay active and independent for life. The guide is intended to help individuals prevent falls and fall-related injuries – a major threat to independent living. The publication is in the public domain. http://www.doh.wa.gov/hsqa/emstrauma/injury/pubs/SAILguide.pdf

National Resource Center on Supportive Housing and Home Modification
A university-based (University of Southern California), non-profit organization dedicated to promote aging in place and independent living for persons of all ages and abilities, the Center offers a vision for the future as well as practical strategies and materials for policymakers, practitioners, consumers, manufacturers, suppliers, and researchers. The Center is an information clearinghouse for resources on home modification. The site links to several home safety checklists. www.homemods.org

Safe Steps Program Materials
The Home Safety Council has developed the national *Safe Steps* program designed to educate older adults and their family members on how to reduce their risk of falling dangers. The *Safe Steps* program, includes an instructional video, educational wall poster, and activities that can help track medications, exercise and assess overall home safety. All program materials are available on their website at http://homesafetycouncil.org/home/home_march05_w002.aspx

Rebuilding Together
Rebuilding Together is an organization that rebuilds houses for low-income homeowners such as the elderly or persons with disabilities. Their mission is to provide houses that promote warmth, independence, and safety. A home safety checklist is available on the website. www.rebuildingtogether.org

Free from Falls Program Description
Free from Falls is a comprehensive course administered through The OASIS Institute, located in St. Louis, Missouri, designed for older adults who are still independent and active and wish to make changes to prevent future falls. There are four components to the program: 1) " Fall Prevention and You"; 2) "Safe at Home"; 3) "Improving Your Balance"; and 4) "Matter of Balance: Managing Concerns About Falls". www.oasisnet.org

The National Blueprint: Increasing Physical Activity Among Adults Age 50 and Older
Blueprint partner organizations have identified 18 high priority strategies for increasing physical activity among adults age 50 and older. Website includes downloadable presentations about the blueprint, links to aging and physical activity information, public information tips and variety of other useful information.
http://www.agingblueprint.org

Safe Step resources
This site offers a virtual home tour with suggestions and related resources for improving home safety in every room of your house, including falls prevention. The site also links to Safe Steps resources which include medication and physical activity tips and tracking sheets which can be duplicated. www.mysafehome.org

Help Seniors Live Better Longer: Prevent Brain Injury
Site includes brochures, fact sheets and tips for preventing falls for the family and caregivers. As well, contains "Event Planning" and "Media Access" guides designed to assist with planning and hosting successful community events and working effectively with the media. http://www.cdc.gov/BrainInjuryInSeniors/

Residential Fire H.E.L.P. Partnership
CDC has partnered with Meals on Wheels Association of America (MOWAA) and the International Association of Fire Chiefs (IAFC) to develop and implement the Residential Fire Homebound Elderly Lifeline Project (H.E.L.P.) to provide information about home fire risk factors. The opportunity to provide education in the homes of elderly homebound has also provided an opportunity to provide falls risk education in many communities.
www.cdc.gov/ncipc.duip/firehelp.htm

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